



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/593,800	06/15/2000	TETSUO TANIGUCHI	106514	1394

7590 12/06/2001  
OLIFF & BERRIDGE PLC  
PO BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER
NATIVIDAD, PHILIP SANA

ART UNIT	PAPER NUMBER
2877	12

DATE MAILED: 12/06/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/593,800

Applicant(s)

TANIGUCHI ET AL.

Examiner

Phil S. Natividad

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2001.
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☒ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claim 10 is objected to because of the following informality: While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). The term "diverges" in claim 10 is used by the claim to mean that the measurement axis --misses-- the mirror/stage (specification p. 3-4, and the figs.) while the accepted meaning is "extend[s] in different directions from a common point" (Merriam-Webster's *Collegiate Dictionary*, 10<sup>th</sup> Edition). For an axis to **diverge from** a stage mirror, it would have a **common point** with it (i.e., still intersecting the stage mirror), rather than missing it entirely, as is in applicant's disclosure.

### *Claim Rejections - 35 USC § 102 and 103*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 10-15 and 24 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nara et al. (,841).
4. Claims 1-9, 16-23, and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nara et al. As to claims 1-3, 8-9, 29, Nara et al. disclose applicant's invention, except it is well known in the art that a plurality of independently movable stages may be used for photolithographic exposures in alternating fashion, of which Official Notice is taken. As to claims 16 and 21-27, the method including a step of transferring a mask pattern onto a substrate,

Application/Control Number: 09/593,800  
Art Unit: 2877

is inherent in the above apparatus. As to claims 4-7 and 17-20, it is notoriously well known in the art that it may be either the masks or the substrates that are positioned on movable stage(s) for proper relative alignment, and it would have been obvious to obtain applicant's claims as recited, motivation being increased throughput for exposure and alignment measuring of either one substrate with multiple patterns or multiple substrates with the same pattern. Further, the dependent claims 28 and 30 recite embodiments that are only obvious variants of the invention as recited in the independent claims, e.g. ceramic stages and alignment specifically of marks on the substrates on the stages, of which Official Notice is taken.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 10-15 and 24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phil S. Natividad whose telephone number is 703-306-5944. The examiner can normally be reached on Tuesday-Thursday and alternating Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 703-308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Application/Control Number: 09/593,800

Art Unit: 2877

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

PCN

Phil Natividad  
Patent Examiner  
psn  
November 20, 2001

A Z A

FRANK G. FONT  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800